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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,008	07/21/2005	Stefan Huber	112740-1085	2577

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BELL, BOYD & LLOYD, LLP  
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CHICAGO, IL 60690

EXAMINER
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KARACSONY, ROBERT

ART UNIT	PAPER NUMBER
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2821

MAIL DATE	DELIVERY MODE
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05/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/543,008

Applicant(s)

HUBER ET AL.

Examiner

Robert Karacsony

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Applicants amendments filed on March 12, 2007 have been received and entered in the case. Claims 12-22 are still pending. This Office action overcomes the rejections made in the previous Office action in view of new grounds of rejections, which are set forth below.

#### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 12-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Weinberger (2001/0050636, hereinafter Weinberger).

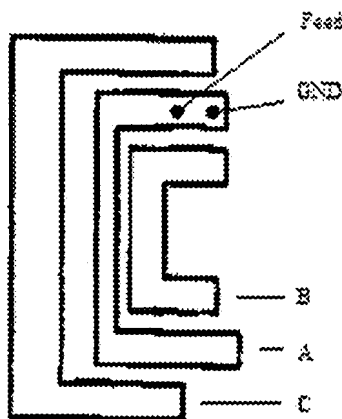


Fig. 1-OA

Fig. 1-OA above illustrates one of the multiband antennas of Weinberger illustrated in Fig. 5L using capacitive coupling between the individual radiator elements, as disclosed in Weinberger [0032].

Claim 12: Weinberger teaches a multiband antenna array for a mobile radio equipment, comprising:

a planar patch antenna (A shown in fig. 1-OA) having a plurality of resonances (the planar patch antenna resonates at a plurality of frequencies) and is further coupled to a ground connection (GND of fig. 1-OA) and to a high-frequency interface (Feed of fig. 1-OA); and

a plurality of parasitic transmitters (B and C shown in fig. 1-OA), wherein said transmitters are located marginal to the planar patch antenna (fig. 1-OA) and are each embodied so as to be free of a high-frequency interface (fig. 1-OA), wherein the parasitic transmitters are arranged as line-type conductor structures (fig. 1-OA), whereas the structures of the planar patch antenna are arranged as sheet-type conductor structures (fig. 1OA).

Claim 13: Weinberger teaches at least one parasitic transmitter is provided with a connection to ground (B is coupled to A, which is connected to ground).

Claim 14: Weinberger teaches the plurality of parasitic transmitters are provided with a shared connection to ground (B and C are coupled to A, which is connected to ground, thus, share the connection to ground).

Claim 15: Weinberger teaches at least one parasitic transmitter is free of connections to ground (Fig. 1-OA).

Claim 16: Weinberger teaches the plurality of parasitic transmitters are arranged on opposite sides of the planar patch antenna (Fig. 1-OA).

Claim 17: Weinberger teaches the plurality of parasitic transmitters are located on adjacent sides of the planar patch antenna (Fig. 1-OA).

Claim 18: Weinberger teaches at least one parasitic transmitter extends at least partially over two adjacent sides of the planar patch antenna (Fig. 1-OA).

Claim 19: Weinberger teaches at least one parasitic transmitter extends at least partially over three adjacent sides of the planar patch antenna (Fig. 1-OA).

Claim 20: Weinberger teaches at least one parasitic transmitter extends at least partially over four sides of the planar patch antenna (Weinberger teaches the radiator element can be configured rectangularly, [0026];[fig. 8), therefore, at least one parasitic transmitter extends at least partially over four sides).

Claim 21: Weinberger teaches the planar patch antenna and the parasitic transmitters are arranged in a plane (Fig. 1-OA).

Claim 22: Weinberger teaches at least one parasitic transmitter has a spatial extension, emerging perpendicularly out of the plane of the planar patch antenna (Weinberger teaches the radiator element can be configured rectangularly, [0026];[fig. 12), therefore, at least one parasitic transmitter has a spatial extension, emerging perpendicularly out of the plane of the planar patch antenna).

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 12-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Karacsony whose telephone number is 571-270-1268. The examiner can normally be reached on M-F 7:30-5 EST with alternating Friday's off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RKLR

*Douglas W. Owens* 4/27/07

DOUGLAS W. OWENS  
SUPERVISORY PATENT EXAMINER